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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,059	12/27/2000	James M. Proper	D/A0433Q	5636
7590	05/04/2004		EXAMINER	
John E. Beck Xerox Corporation Xerox Square 20A Rochester, NY 14644				COOLEY, CHARLES E
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/749,059	PROPER, JAMES M.	
	Examiner Charles E. Cooley	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 February 2004.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3-11,20 and 22-27 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 6,8 and 10 is/are allowed.  
 6) Claim(s) 1,3-5,7,9,20,22,23 and 25-27 is/are rejected.  
 7) Claim(s) 24 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 FEB 2004 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 3, 4, 7, 9, 11, 20, and 22-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The subject matter added by amendment to claims 1 and 11 and the subject matter of newly presented claims 25-27 regarding the tool being "sufficiently robust" or "robust enough" is not supported by the originally filed disclosure with regard to the claimed invention. The phrases "sufficiently robust" or "robust enough" do not appear in

the specification and the specification is silent with regard to the degree of robustness of the instant blending tool. The phrases are also coupled with speed limitations (such as "exceeding 50 feet per second") which actually describe the prior art mixer and tool of Figures 1 and 2 and not necessarily operational characteristics of the instant invention. Claims 1, 3, 4, 7, 9, 11, 20, and 22-27 therefore involve new matter.

***Claim Rejections - 35 U.S.C. § 112, second paragraph***

4. Claims 1, 3, 4, 7, 9, 11, 20, and 22-27 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The second paragraph of 35 U.S.C. § 112 requires a claim to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Under *In re Hammack*, 427 F.2d 1378, 166 USPQ 204 (CCPA 1970) and *In re Moore*, 169 USPQ 236 (CCPA 1971), claims must be analyzed to determine their metes and bounds so that it is clear from the claim language what subject matter the claims encompass. This analysis must be performed in light of the applicable prior art and the disclosure. The definiteness of the claims is important to allow others who wish to enter the market place to ascertain the boundaries of protection that are provided by the claims. *Ex parte Kristensen*, 10 USPQ 2d 1701, 1703 (BPAI 1989). One of the purposes of 35 U.S.C. § 112, second paragraph, "is to provide those who would endeavor, in future enterprise, to approach the area circumscribed by the claims of a patent, with adequate notice demanded by due process of law, so that they may more

readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance." *In re Hammack*, supra. As set forth in *Amgen Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1217, 18 USPQ2d 1016, 1030 (Fed. Cir. 1991):

The statute requires that "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." A decision as to whether a claim is invalid under this provision requires a determination whether those skilled in the art would understand what is claimed. See *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed. Cir. 1985) (claims must "reasonably apprise those skilled in the art" as to their scope and be "as precise as the subject matter permits.").

6. The pending claims 1, 3, 4, 7, 9, 11, 20, and 22-27 fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention and are therefore of indeterminate scope for the following reasons:

Words of degree often cause definiteness problems. See *Seattle Box Co. v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 826, 221 USPQ 568, 573 (Fed. Cir. 1984). Whenever a word of degree impacts the interpretation of a claim, the specification must provide some standard for measuring that degree. One of ordinary skill in the art must be able to understand what is claimed when the claim is read in light of the specification. *Id.* In the present case, there is no standard for determining what constitutes a "sufficiently robust" or "robust enough" blending tool. At what point does a prior art blending tool become "sufficiently robust" or "robust enough" to rotate at a particular speed? Therefore, one of ordinary skill in the art would be wholly unable to determine when a prior art blending tool is "sufficiently robust" or "robust enough" to rotate at a particular speed.

The phrases "sufficiently robust" or "robust enough" in amended claims 1 and 11 and new claims 25-27 are considered relative phrases which render the scope of the claims indefinite. The phrases "sufficiently robust" or "robust enough" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claims are being treated on the merits to the extent they are understood and considered definite.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 4, 7, 9, 20, 22, 25, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by BARNEY (US 723,977).

The patent to BARNEY discloses a blending tool for use in a vessel A including a rotatable drive shaft h; a shank C attached to the drive shaft at a location of attachment h'; a collision surface D having a profile; a connector mechanism e, f capable of pivotally connecting the collision surface D to an end region of the shank C (Fig. 2) at a location spaced apart from the attachment location; wherein the connector mechanism is capable of permitting adjustability of the collision surface D to thereby vary the profile of the collision surface D along a plane parallel to the axis of the shaft; the connector

mechanism having a fastener f which upon fastening or tightening enables the collision surface to be rigidly fixed in one of any number of desired positions during rotation (col. 2, lines 96-101) or loosened to a degree that the collision surface D is inherently removable from the shank; the collision surface D comprising plates D spaced apart from the shank C; whereby the height of the blending tool is adjustable relative to the plane of rotation (e.g., once the fastener f is loosened, any point on the collision surface D would be located at a higher or lower position in a plane parallel to the axis of the shaft); wherein such pivoting of the collision surface D with respect to the shank C varies the profile thereof along its height dimension; a motor F for driving rotation of the blending tool. The blending tool of BARNEY is deemed robust enough to adequately operate at a wide range of rotational speeds.

9. Claims 11 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by BARNEY (US 723,977).

The patent to BARNEY discloses a blending machine including a vessel A; a rotatable drive shaft C having an axis and positioned inside of the vessel; a blending tool D mounted to the drive shaft C inside the vessel, said blending tool comprising a shank e having a location of attachment to the drive shaft C, a collision surface (the surface of D) having a collision profile and an outside edge, and a connector mechanism f pivotally connecting the collision surface to the shank for connecting the collision surface to the shank at a location spaced apart from the attachment location, wherein pivoting at the connector mechanism varies the collision profile of the collision surface along a plane essentially parallel to the axis of the shaft C, wherein the

connector mechanism holds the collision surface in a rigidly fixed position during rotation of the tool (col. 2, lines 100-101); wherein the collision surface of the blending tool D comprises a collision plate D spaced apart and rigidly connected to the shank e of the blending tool during rotation of the tool (Fig.3). The blending tool of BARNEY is deemed robust enough to adequately operate at a wide range of rotational speeds.

10. Claims 1, 3, 7, 9, 11, 22, 25, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by DEAM (US 354,104).

The patent to DEAM discloses a blending tool for use in a vessel A including a rotatable drive shaft B positioned within the vessel A; a shank H attached to the drive shaft at a location of attachment; a collision surface I having a profile; a connector mechanism h, i capable of pivotally connecting the collision surface I to an end region of the shank H (Fig. 1) at a location spaced apart from the attachment location; wherein the connector mechanism is capable of permitting adjustability of the collision surface I to thereby vary the profile of the collision surface I along a plane parallel to the axis of the shaft; the connector mechanism having a fastener h which upon fastening or tightening enables the collision surface to be rigidly fixed in one of any number of desired positions during rotation (col. Page 1, lines 44-56) or loosened to a degree that the collision surface I is inherently removable from the shank; the collision surface I comprising plates I ; whereby the height of the blending tool is adjustable relative to the plane of rotation (e.g., once the fastener h is loosened, any point on the collision surface I would be located at a higher or lower position in a plane parallel to the axis of the shaft); wherein such pivoting of the collision surface I with respect to the shank H

varies the profile thereof along its height dimension; a motor (Page 1, lines 34-37) for driving rotation of the blending tool. The blending tool of DEAM is deemed robust enough to adequately operate at a wide range of rotational speeds.

11. Claims 1, 3, 4, 5, 7, 9, 11, 20, 22, 23, 25, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by FICKELSCHEER (US 619,018).

The patent to FICKELSCHEER discloses a blending tool for use in a vessel a including a rotatable drive shaft B; a shank f attached to the drive shaft at a location of attachment e1; a collision surface g having a profile; a connector mechanism (g' and the socket in which g' is disposed as seen in the Figures) capable of pivotally connecting a collision surface g to each end region of the shank f (Figs. 1-2) at a location spaced apart from the attachment location; wherein the connector mechanism is capable of permitting adjustability of the collision surface g to thereby vary the profile of the collision surface g along a plane parallel to the axis of the shaft; the connector mechanism having a fastener g' which upon fastening or tightening enables the collision surface to be rigidly fixed in one of any number of desired positions during rotation (col. 1, lines 33-35) or loosened to a degree that the collision surface g is inherently removable from the shank; the collision surface g comprising plates g spaced apart from the shank f; whereby the height of the blending tool is adjustable relative to the plane of rotation (e.g., once the fastener g' is loosened, any point on the collision surface g would be located at a higher or lower position in a plane parallel to the axis of the shaft); wherein such pivoting of the collision surface g with respect to the shank f varies the profile thereof along its height dimension; a motor (col. 1, lines 28-30) for driving rotation

of the blending tool. The blending tool of DEAM is deemed robust enough to adequately operate at a wide range of rotational speeds.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 3, 4, 7, 9, 11, 20, 22, 23, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over BARNEY (US 723,977).

Assuming, *arguendo*, that the blending tool of BARNEY is not sufficiently robust to fall within the undetermined scope of the claims, the examiner considers the subject matter drawn to the robustness of the blending tool to be a pseudo limitation of the type of material from which the blending tool is formed because the degree of robustness of a given blending tool is considered directly proportional to the strength and mechanical properties of the material from which it is made. Therefore, lacking any guidance from the instant specification to contrary, the patent to BARNEY may not disclose the blending tool being formed of a material to provide the requisite robustness. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the blending tool of BARNEY from such a material to provide any desired degree of robustness, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the

intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416; *Sinclair & Carroll Co., Inc. v. Interchemical Corp.*, 65 USPQ 297 (1945).

Furthermore, since the conclusion of obviousness can be made from the common knowledge and common sense of one of ordinary skill in the art (*In re Bozek*, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969)), it would have been obvious to one of ordinary skill in the art to have formed the blending tool of BARNEY from any well-known construction materials which would impart the desired robustness to the blending tool at the operational speeds that the tool would be expected to encounter. *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

It is observed that artisans must be presumed to know something about the art apart from what the references disclose (see *In re Jacoby*, 309 F.2d 513, 135 USPQ 317 (CCPA 1962)). Moreover, skill is presumed on the part of those practicing in the art. See *In re Sovish*, 769 F.2d 738, 226 USPQ 771 (Fed. Cir. 1985). Therefore, it is concluded that the selection of well-known high strength materials in the blending art would have been obvious to one of ordinary skill in this art, if for no other reason than to achieve the advantage of using a stronger material suitable for high speed rotational environments.

14. Claims 1, 3, 4, 7, 9, 11, 20, 22, 23, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over DEAM (US 354,104).

Assuming, *arguendo*, that the blending tool of DEAM is not sufficiently robust to fall within the undetermined scope of the claims, the examiner considers the subject matter drawn to the robustness of the blending tool to be a pseudo limitation of the type

of material from which the blending tool is formed because the degree of robustness of a given blending tool is considered directly proportional to the strength and mechanical properties of the material from which it is made. Therefore, lacking any guidance from the instant specification to contrary, the patent to DEAM may not disclose the blending tool being formed of a material to provide the requisite robustness. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the blending tool of by DEAM from such a material to provide any desired degree of robustness, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice as explained above.

15. Claims 1, 3, 4, 5, 7, 9, 11, 20, 22, 23, 25, 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over FICKELSCHEER (US 619,018).

Assuming, *arguendo*, that the blending tool of FICKELSCHEER is not sufficiently robust to fall within the undetermined scope of the claims, the examiner considers the subject matter drawn to the robustness of the blending tool to be a pseudo limitation of the type of material from which the blending tool is formed because the degree of robustness of a given blending tool is considered directly proportional to the strength and mechanical properties of the material from which it is made. Therefore, lacking any guidance from the instant specification to contrary, the patent to FICKELSCHEER may not disclose the blending tool being formed of a material to provide the requisite robustness. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the blending tool of by

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FICKELSCHEER from such a material to provide any desired degree of robustness, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice as explained above.

### ***Allowable Subject Matter***

16. Claim 24 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as the prior art does not show the connector mechanism in the form of an articulator hinge.

17. Claims 6, 8, and 10 stand allowed.

### ***Response to Arguments***

18. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new grounds of rejection necessitated by the newly found prior art.

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art shows blending tools having means to adjust the position thereof.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Charles E. Cooley  
Primary Examiner  
Art Unit 1723

29 April 2004